

**In the Claims**

Please add new claims as follows:

19. A method of forming a device comprising:  
providing a recess within a substrate;  
providing at least a portion of an antenna within the recess;  
providing an integrated circuit at least partially within the recess and in operative  
electrical connection with the antenna; and  
wherein the antenna crosses itself at a bypass, said bypass comprising dielectric  
material between crossing portions of the antenna.

20. A radio frequency identification device comprising:

a recess disposed in a flexible plastic substrate, the recess having a bottom surface and four approximately orthogonal sidewall surfaces that extend non-perpendicularly from the bottom surface toward an upper surface of the substrate, each of the four sidewall surfaces sloped outward from the bottom surface toward the upper surface;

an antenna, at least a portion of which is disposed outside of the recess;

an integrated circuit disposed within the recess, the integrated circuit comprising RFID circuitry to provide memory and processing functions;

a conductive film disposed over at least one of the four sidewall surfaces to couple the integrated circuit to the antenna; and

a flexible laminated film disposed over the recess, the antenna, the integrated circuit, and the conductive film.

21. The radio frequency identification device of claim 20, wherein the conductive film comprises a printed film.

22. The radio frequency identification device of claim 20, further comprising a conductive adhesive to couple the integrated circuit to the conductive film.

23. The radio frequency identification device of claim 20, wherein the conductive film is further disposed over the bottom surface at a first end and over the upper surface at a second end.

24. The radio frequency identification device of claim 20, wherein the portion of the antenna is disposed between the laminated film and the upper surface of the substrate.

25. The radio frequency identification device of claim 20, wherein the antenna comprises a film that is different from the conductive film.

26. The radio frequency identification device of claim 20, wherein the antenna comprises a printed film.

27. The radio frequency identification device of claim 20, wherein the antenna is coupled to the integrated circuit via a conductive adhesive.

28. The radio frequency identification device of claim 20, wherein the laminated film includes a printable surface.

29. The radio frequency identification device of claim 20, wherein readable information is visible from the laminated film.

30. The radio frequency identification device of claim 20, wherein the laminated film is less than about one mil in thickness.

31. A radio frequency identification device comprising:

a recess disposed in a flexible plastic substrate, the recess having a bottom surface and sidewall surfaces that extend non-perpendicularly from the bottom surface toward an upper surface of the substrate, each of the sidewall surfaces sloping outward from the bottom surface toward the upper surface;

an antenna, at least a portion of which is a first conductive film disposed above the upper surface;

an integrated circuit disposed within the recess, the integrated circuit comprising RFID circuitry to provide memory and processing functions;

a second conductive film, separate from the first conductive film, having a first region coupled to the integrated circuit and a second region coupled to the portion of the antenna; and

a flexible protective film disposed above the recess, the antenna, the integrated circuit, and the conductive film.

32. The radio frequency identification device of claim 31, wherein the second conductive film comprises a printed film.

33. The radio frequency identification device of claim 31, wherein the first region of the second conductive film is disposed above the bottom surface.

34. The radio frequency identification device of claim 31, wherein the second conductive film is disposed above at least one of the sidewall surfaces between the first and second regions.

35. The radio frequency identification device of claim 31, further comprising a conductive adhesive bonded to the integrated circuit and to the first region of the first conductive film.

36. The radio frequency identification device of claim 31, wherein the antenna comprises a printed film.

37. The radio frequency identification device of claim 31, wherein readable information is printed on the protective film.

38. The radio frequency identification device of claim 31, wherein the protective film is less than about one mil in thickness.

39. A method of forming a radio frequency identification device comprising:  
forming a recess in a flexible plastic substrate, the recess having a bottom surface  
and sidewall surfaces that slope outward from the bottom surface toward an upper surface  
of the substrate;  
providing an integrated circuit within the recess, the integrated circuit comprising  
RFID circuitry to provide memory and processing functions;  
providing at least a portion of an antenna over the upper surface of the substrate;  
providing a conductive film coupled to the integrated circuit at a first end, extending  
over at least a portion of one of the sidewall surfaces, and coupled to the portion of the  
antenna at a second end; and  
laminating a flexible plastic film over the recess, the integrated circuit, the  
conductive film, and the antenna.

40. The method of claim 39, wherein providing the conductive film comprises  
printing.

41. The method of claim 39, further comprising forming a conductive adhesive  
between the conductive film and the integrated circuit to bond the integrated circuit to the  
conductive film.

42. The method of claim 39, further comprising depositing a conductive material  
to form the portion of the antenna.

43. The method of claim 39, further comprising printing information on the plastic film.

44. An apparatus comprising:  
a flexible plastic substrate comprising a plurality of recesses, each of the recesses having a bottom surface and four approximately orthogonal sidewall surfaces that extend non-perpendicularly from the bottom surface toward an upper surface of the substrate, each of the four sidewall surfaces sloped outward from the bottom surface toward the upper surface;

a plurality of integrated circuits disposed within the plurality of recesses such that each of the recesses contains an integrated circuit, each of the integrated circuits comprising RFID circuitry to provide memory and processing functions; and

a plurality of continuous conductive films, each of the continuous conductive films having a first portion and a second portion, the first portion being coupled to respective ones of the integrated circuits disposed within the recesses and the second portion extending above the upper surface of the substrate.

45. The apparatus of claim 44, wherein the substrate comprises a plurality of rows of recesses and a plurality of columns of recesses.

46. The apparatus of claim 44, wherein each of the continuous conductive films is disposed above at least one respective sidewall surface between the first and second portions.

47. The apparatus of claim 44, wherein the continuous conductive films comprise printed films.

48. The apparatus of claim 44, wherein the first portion of each of the continuous conductive films is coupled to respective ones of the integrated circuits using a conductive adhesive.

49. A radio frequency identification device comprising:  
a recess disposed in a flexible plastic substrate, the recess having a bottom surface and four approximately orthogonal sidewall surfaces that extend non-perpendicularly from the bottom surface toward an upper surface of the substrate, each of the sidewall surfaces sloping outward from the bottom surface toward the upper surface;

an antenna, at least a portion of which is a first conductive film disposed above the upper surface;

an integrated circuit disposed within the recess, the integrated circuit comprising RFID circuitry to provide memory and processing functions;

a second conductive film, separate from the first conductive film, having a first region coupled to the integrated circuit and disposed above the bottom surface, having a



second region coupled to the portion of the antenna and disposed above the upper surface, and having a third region between the first and second regions and disposed above one of the sidewall surfaces; and

a flexible laminated film disposed above the recess, the antenna, the integrated circuit, and the conductive film.

50. The radio frequency identification device of claim 49, further comprising a conductive adhesive bonded to the integrated circuit and to the first region of the second conductive film.

51. The radio frequency identification device of claim 49, wherein the antenna comprises a printed film.

52. The radio frequency identification device of claim 49, wherein the laminated film includes a printable surface.

53. The radio frequency identification device of claim 49, wherein the laminated film is less than about one mil in thickness.